

Amended Claims as filed on September 2, 2004 in reply to  
an official action

1. A method for correcting the thickness of a metal strip during rolling by a roll stand with adjusting elements to regulate the thickness of the strip and at least one take-up coiler, whereas an average strip thickness of a strip section is determined from at least one strip length measurement and the measurement of the dedicated rotation of the take-up coiler and the adjusting elements of the roll stand are controlled at least depending on the average strip thickness of the strip section, characterised in that the strip thickness is additionally measured radiometrically and the adjusting elements of the roll stand are controlled depending on a radiometric strip thickness corrected using the average strip thickness.
2. The method according to claim 1, characterised in that the strip length is measured using the laser Doppler velocimetry method.
3. The method according to any one of claims 1 to 2, characterised in that the rotation speed of the take-up coiler is measured using high-resolution incremental sensors on the axis of the take-up coiler or the axis of the take-up coiler motor.
4. The method according to any one of claims 1 to 3, characterised in that a plurality of values for the average strip thickness of the same strip section is measured by selecting a plurality of different

starting points and strip lengths to be measured to determine the average strip thickness.

5. The method according to claim 4, characterised in that the values for the average strip thickness of the same strip section are additionally smoothed with variable weighting depending on the actual coil diameter of the strip on the take-up coiler.
6. The method according to any one of claims 1 to 5, characterised in that at least one further redundant strip length measurement is made.
7. The method according to claim 6, characterised in that if a first strip length measurement used to determine the average strip thickness fails, there is an automatic switchover to a further redundant strip length measurement.
8. A device for correcting the thickness of a metal strip (1) during rolling using at least one roll stand (2) with adjusting elements to regulate the thickness of the strip, at least one take-up coiler (4) as well as means for measuring the strip length (5) and the extent of the dedicated rotation of the take-up coiler (6) and means (18) for controlling the adjusting elements of the roll stand (2) depending on an average strip thickness determined from the measured strip length and dedicated rotation of the take-up coiler (4) are provided, especially for implementing a method according to claims 1 to 7, characterised in that means (8, 9) for radiometric determination of the thickness of

ART 34 AM

the metal strip (1) are additionally provided between the roll stand (2) and take-up coiler (3).

9. The device according to claim 8, characterised in that means (5) are provided for redundant measurement of the strip length.
10. The device according to any one of claims 8 or 9, characterised in that a laser Doppler velocimetry system (5) is provided for measuring the strip length.
11. The device according to any one of claims 8 to 10, characterised in that high-resolution incremental sensors (6) are provided on the axis of the take-up coiler (7) or the axis of the take-up coiler motor.